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ABSTRACT

Although the gap between women's and men's wages differs slightly depending on how the gap is measured, no matter how they are measured, women's earnings are below those received by men in 97% of the occupations for which data are available. Since 1979, women's earnings have been climbing when compared with men's earnings, gaining steeply during the 1980s. Differences emerge when different age and racial groups are considered, however. After the recession in the early 1990s, however, women's labor force participation rate stalled for about 3 years. During that same period, the trend toward closing of the wage gap slowed. The reasons for the slowdown in the earnings ratio climb remain unclear. Research has identified a number of possible causes for differences in women's and men's earnings: women's continued clustering in certain occupations; young women's choice of school major and career; women's generally fewer years of participation in the work force and resultant lack of seniority; and sex discrimination. Some of these causes could be addressed by, for example, increasing women's time in the work force and providing child care benefits, flextime, and family leave policies by employers. Of particular interest to educators is Figure 5: "Earnings and Education by Sex/Race/Ethnic Type, 1997." This graph shows 1997 average weekly earnings data for full-time wage and salary workers by the level of education received, for different gender and race groups. The graph shows that as education increases, earnings also rise dramatically (particularly for young women), through the doctoral degree. (MN)

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(WB) EARNINGS DIFFERENCES BETWEEN WOMEN AND MEN

What is the earnings gap? When we talk of comparing women's earnings with men's earnings, we find that no matter how we measure them, women's earnings are below those received by men. In 97 percent of the occupations for which data is available, women's median weekly earnings are less than men's earnings. Very often men's earnings are used as the "yardstick" to measure women's, and we say women's earnings are a percentage of men's. The earnings gap is the difference between this percentage ratio and 100 percent.

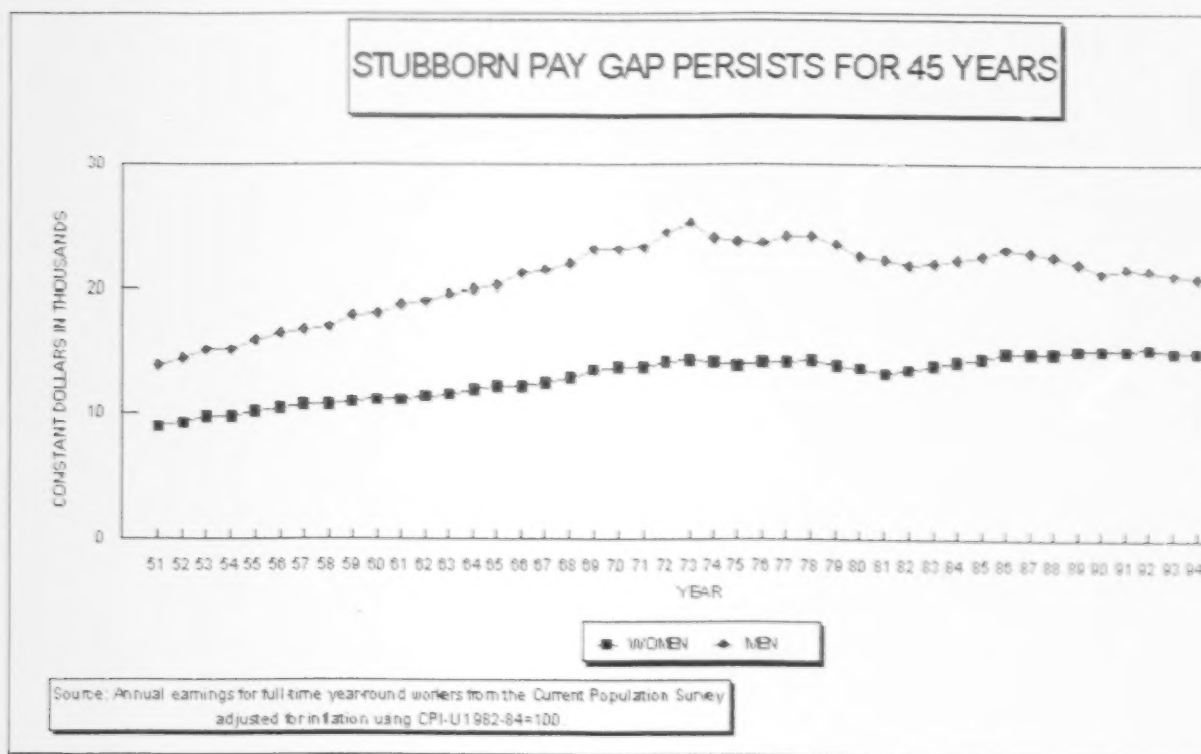


Figure 1

How large is the earnings gap? In 1997, the earnings gap for those paid hourly is 19.2 percent; for weekly earnings the gap is measured at 25.6 percent. In 1996, the most recent year for which data on annual earnings are available, the earnings gap was 26.2 percent. Alternatively, viewed in terms of women's to men's earnings ratio, in 1997, for those receiving hourly wages, women's median hourly earnings were 80.8 percent of men's; for full-time wage and salary workers, women's median weekly earnings were 74.4 percent of men's. In 1996, median annual earnings for women reached peak levels at 73.8 percent of men's annual earnings. All three measures are developed from Current Population

Survey (household survey) data and released by the Bureau of Labor Statistics (BLS) and the Bureau of the Census.

Why the difference among measures? We find that the three measures which compare women's earnings with men's earnings differ for several reasons. Median weekly earnings relate to full-time wage and salary workers; median annual earnings are for full-time year-round workers while hourly earnings are reported for wage and salary workers who are paid an hourly wage, without regard to whether or not they work full-time or year-round wage and salary workers. In 1997, about 60 percent of all wage and salary workers were hourly workers; 50 percent of all employees paid hourly wages were women. When considering the earnings of women and men who work year-round full-time, it should be noted that women are employed fewer hours in the week and fewer weeks in the year than their male counterparts. Less time at work contributes to a part of the earnings difference when women's weekly and annual earnings are compared with men's.

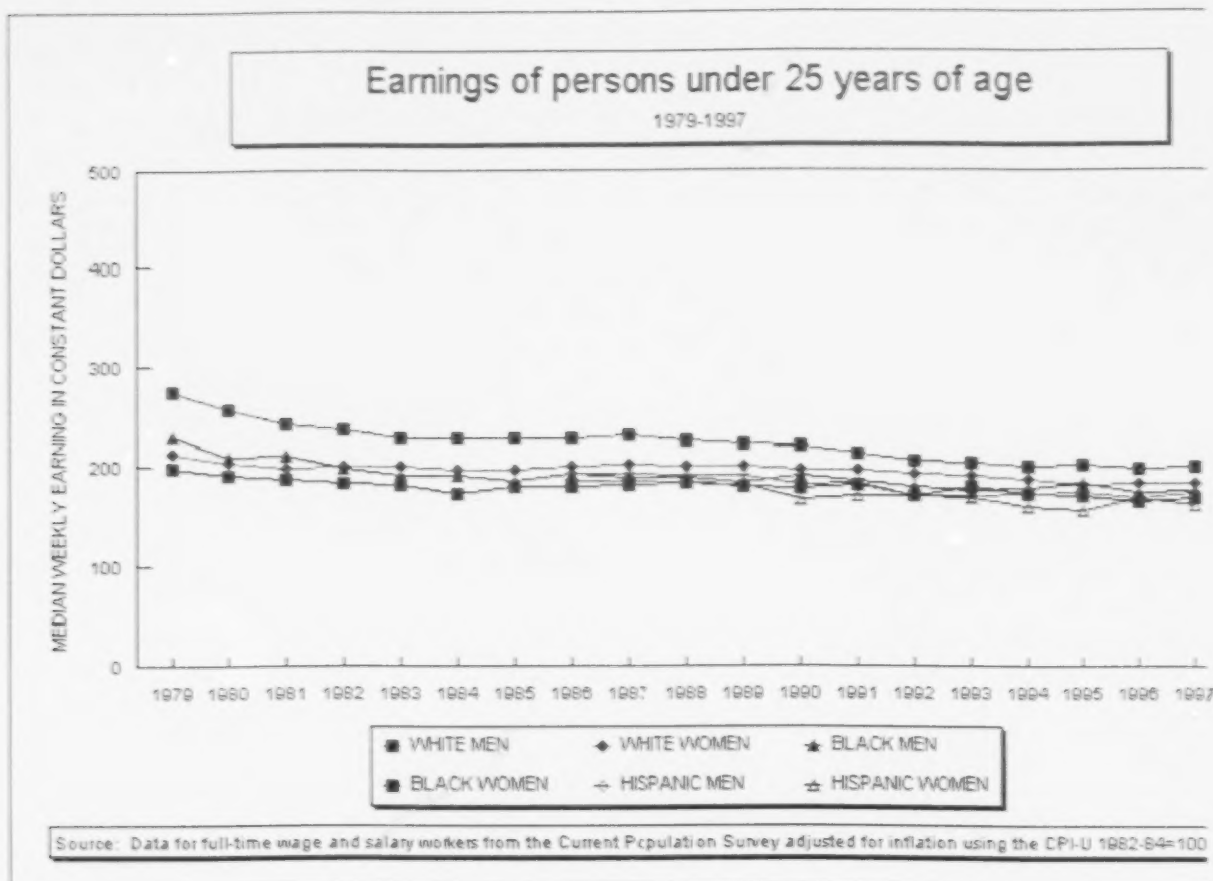


Figure 2

Table 1. Women's earnings as percent of men's earnings, 1979-1997

Year	Hourly	Weekly	Annual
1979	64.1	62.5	59.7
1980	64.8	64.4	60.2
1981	65.1	64.6	59.2
1982	67.3	65.4	61.7
1983	69.4	66.7	63.6
1984	69.8	67.8	63.7
1985	70.0	68.2	64.6
1986	70.2	69.2	64.3
1987	72.1	70.0	65.2
1988	73.8	70.2	66.0
1989	75.4	70.1	68.7
1990	77.9	71.9	71.6
1991	78.6	74.2	69.9
1992	80.3	75.8	70.8
1993	80.4	77.1	71.5
1994	80.6	76.4	72.0
1995	80.8	75.5	71.4
1996	81.2	75.0	73.8
1997	80.8	74.4	

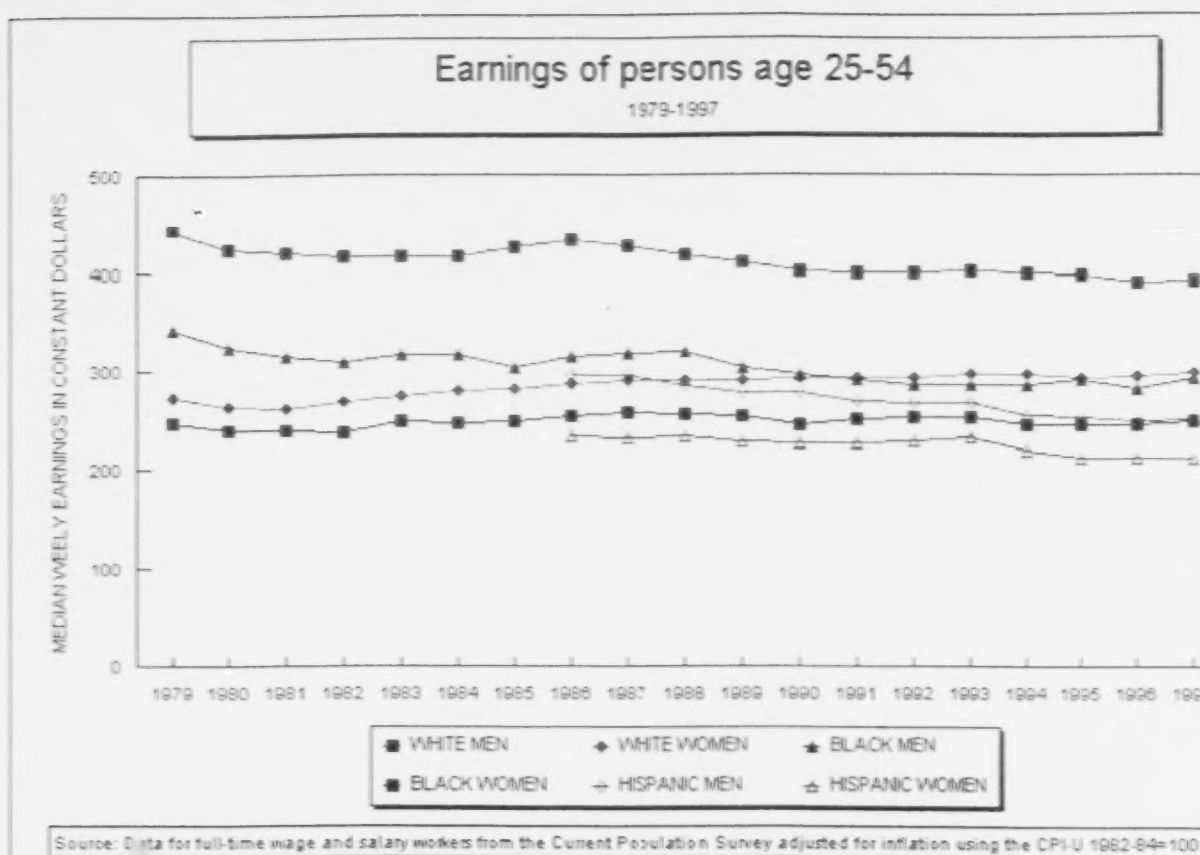


Figure 3

Are we closing the earnings gap? Figure 1 provides perspective on annual earnings adjusted for inflation for women and men working full-time year-round from 1951 through 1996. A gradual closing of the wage gap between women and men since 1973 is apparent. Full-time year-round workers have different characteristics from other workers. Figure 1 outlines the relatively steady climb in women's real earnings while men's earnings peaked in 1973 and have drifted downward since. Recessionary dips appear in both women's and men's real earnings in the early 1980's and in the early 1990's. When we look at the 45-year period as a whole, women's real earnings have increased by 1.2 percent each year while men's earnings have grown by only .9 percent each year. Though annual earnings for women and men have been available from the CPS since 1951, hourly and weekly wages by gender have been calculated on a regular basis only since 1979. Table 1 presents the ratio of women's earnings to men's earnings for median hourly and weekly earnings along with median annual earnings for comparison. The hourly and weekly ratios were prepared by BLS, and the annual ratios, by the Census Bureau. Figures 2 through 4 present weekly earnings data for full-time wage and salary workers, by age and race/gender groups from 1979-1997. Figure 2 shows a steady downward trend with a closing together of real earnings for all race/gender groups 16-24 years old. For those 25-54 years old, white and black men's earnings have gradually moved down while white women's earnings have gradually risen, exceeding black men's earnings in 1991. Black women's earnings have remained relatively stable. For those 55 or older, there has been little change in the relative positions of the various race/gender groups in the 18 year period. It appears that older workers, in general, have not experienced the earnings decline that younger workers have.

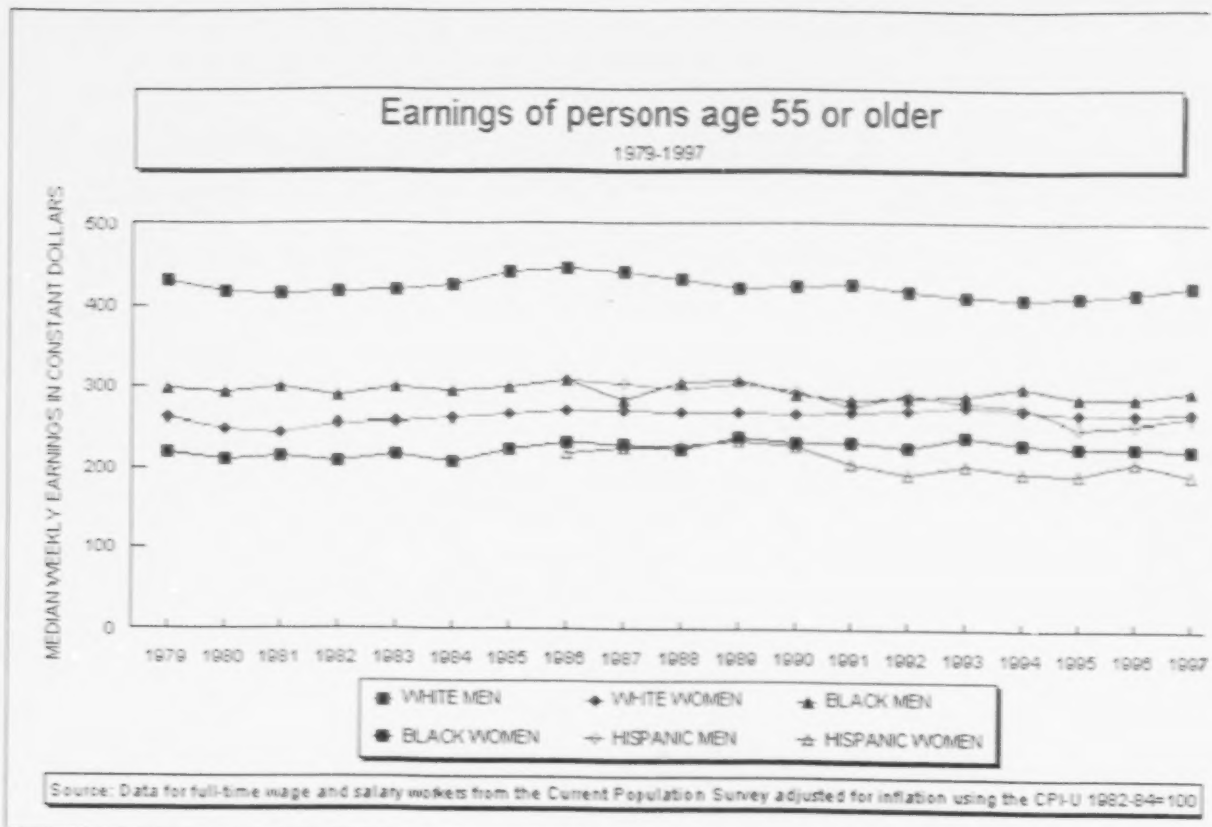


Figure 4

What reasons have been suggested for the differences in earnings between women and men? Often discrimination has been suggested as a major reason for the differences in earnings between women and men. Others have suggested that women choose certain occupations so that they can balance work and family obligations. "Crowding" of women into a few jobs results in such an abundant supply of women workers in these jobs that wages are depressed. Some argue that the wage gap is not a problem. It is a matter of women making different choices in life.

What does research tell us about the trends in earnings differences for women and men?

Researchers have suggested that the wages of all *working* women did not increase relative to those of *working* men between 1920 and 1980 because the skill (as measured by education and experience) of working women did not increase relative to working men over this period (Smith and Ward, 1983).¹ But Figure 1 shows improvement in women's real earnings compared to men starting before 1980, as early as 1973.

Researchers broadened their inquiry into earnings differences between women and men in the 1980's. The earnings distribution for both women and men widened during the decade. But because women's hourly earnings grew faster than men's and because their annual average hours of work increased, while men's hours of work did not, a larger segment of all working women had annual earnings of \$20,000 or more at the end of the decade than at the beginning even when measured in constant dollars (Levi and Mumane, 1992).²

Sorensen conducted research into the differences in earnings ratios during the 1980's between women and men and between black and white workers.³ She identified two divergent trends. "Women made tremendous gains in their wages relative to those of men" while "The pay disparity between blacks and whites increased for both women and men." Her research suggested that the human capital

characteristics of women (education and work experience) compared to men of the same race increased over the decade. Increases in work experience was more important in raising women's earnings than changes in education, however. The occupational distribution of women and men also tended to converge. The wider gap in earnings between black and white men was related to changes in industrial attachment and in the wage structure during the 1980's which increased the returns to education for white men.

In the March 1998 issue of the *Monthly Labor Review*, Hecker pointed out that among college graduates, some of the differential in earnings between women and men can be accounted for by age and educational attainment.⁴ In part, this earnings differential is caused by a higher proportion of working women than men being in the young age group and a lower proportion being in the older age group where earnings tend to peak, reflecting returns to experience. When the major field of study was considered, women's earnings were generally even closer to the earnings of men; when the occupation and major were considered, women's earnings moved even closer still to men's earnings. The choice of both occupation and major for college graduates are significant factors in determining earnings. Although, women college graduates earned less than men did overall, the earnings gap lessens significantly in most cases when women are compared with men with similar educations and similar occupations.

June O'Neill has cited a study using data from the *National Longitudinal Survey of Youth* which found that among women and men 27 to 33 years old who have never had a child, women's earnings were close to 98 percent of men's earnings.⁵ Although this is good news, children should not be used as an excuse to pay women less. In 1997, 40 million children depended on the earnings of a working mother.

Which occupations have shown the greatest tendency for women's earnings to lag behind men's earnings? Table 2 presents women's median weekly earnings as a proportion of men's for selected occupations. The groups included in this table are those in which the ratios of women's earnings to men's earnings are the lowest in 1997. Ratios are also presented for 1983 to show the recent trend in relative earnings for women and men. Table 2 also presents the proportion of women's employment to total employment for each occupation.

Historically, women have "crowded" into a few occupations. In 1997 the six most prevalent occupations for women were, in order of magnitude, school teachers (except post-secondary teachers), secretaries, cashiers, managers and administrators, registered nurses, and sales supervisors and proprietors. In 1997, about one-fourth of all women workers were employed in these occupations. It has been argued that women choose these occupations because there tends to be less skill obsolescence for workers who leave and reenter the labor force. It has also been argued that the educational commitment for employment in these fields is less than in some others, and workers can have more time at home for other responsibilities.

There may be other factors which are difficult to measure that also affect women's career decisions. To what extent have women been denied the opportunity to find employment in other occupations? Have they been fearful of entering occupations where few women are employed because of lack of knowledge about the field, or fear that sexual harassment may be a factor? These are aspects which are difficult to quantify.

Gupta reported that "(research) results indicate that sex differences in occupations are due both to differences in preferences and to differences in employer selection."⁶ It should be remembered that occupational segregation has been disappearing; there are far fewer "women's" jobs and fewer "men's" jobs than in earlier periods.

What other factors besides occupational choice affect the earnings gap? It has been suggested also, that seniority within the firm and in the job has much to do with earnings of American workers. If this is the case, then the work experience of the two groups will have an impact on the earnings ratio of women to men. In 1990 Topel stated that his "estimates imply a very strong connection between job seniority and wages in the typical employment relationship: other things held constant, 10 years of job seniority raises the wage of the typical worker by over 25 percent."⁷

Data from the Survey of Income and Program Participation (SIPP) showed that for all men only 1.6 percent of all potential work-years were spent away from work while for women workers, 14.7 percent of all potential work-years were spent away from paid work.⁸ Thus, women spend significantly more time away from work and are apparently unable to build the seniority that men achieve. The increase in the proportion of women who are working or looking for work that began shortly after World War II has been one of the most significant social and economic trends in modern U.S. history.

Occupational class	Women to men earnings ratio (percent)		Women employed (percent)
	1983	1997	1997
Total	74.4	66.7	43.1
Financial managers	66.6	63.8	48.9
Marketing, advertising, public relations managers	69.5	60.1	33.5
Education, related fields administrators	69.7	67.1	58.2
Management related financial officers	62.3	N.A.	55.2
Miscellaneous therapists	59.5	N.A.	78.9
Social scientists and urban planners	69.7	70.9	50
Designers	64.9	53	50.5
Insurance sales representatives	65.3	68.8	51.6
Securities, financial services sales representatives	64.1	N.A.	32.5
Retail, personal services sales workers	67.9	63.6	57.6
General office supervisors	68	64.5	68.7
Production occupations supervisors	65.2	63.3	19.2
Precision metalworking occupations	66.8	N.A.	6.6
Printing machine operators	68.4	67.8	20.8
Production inspectors, checkers, examiners	63.1	56.3	45.5

N.A.= Not available. Earnings data are not developed for occupations with fewer than 50,000 employees.

Earnings and education by sex/race/ethnic type, 1997

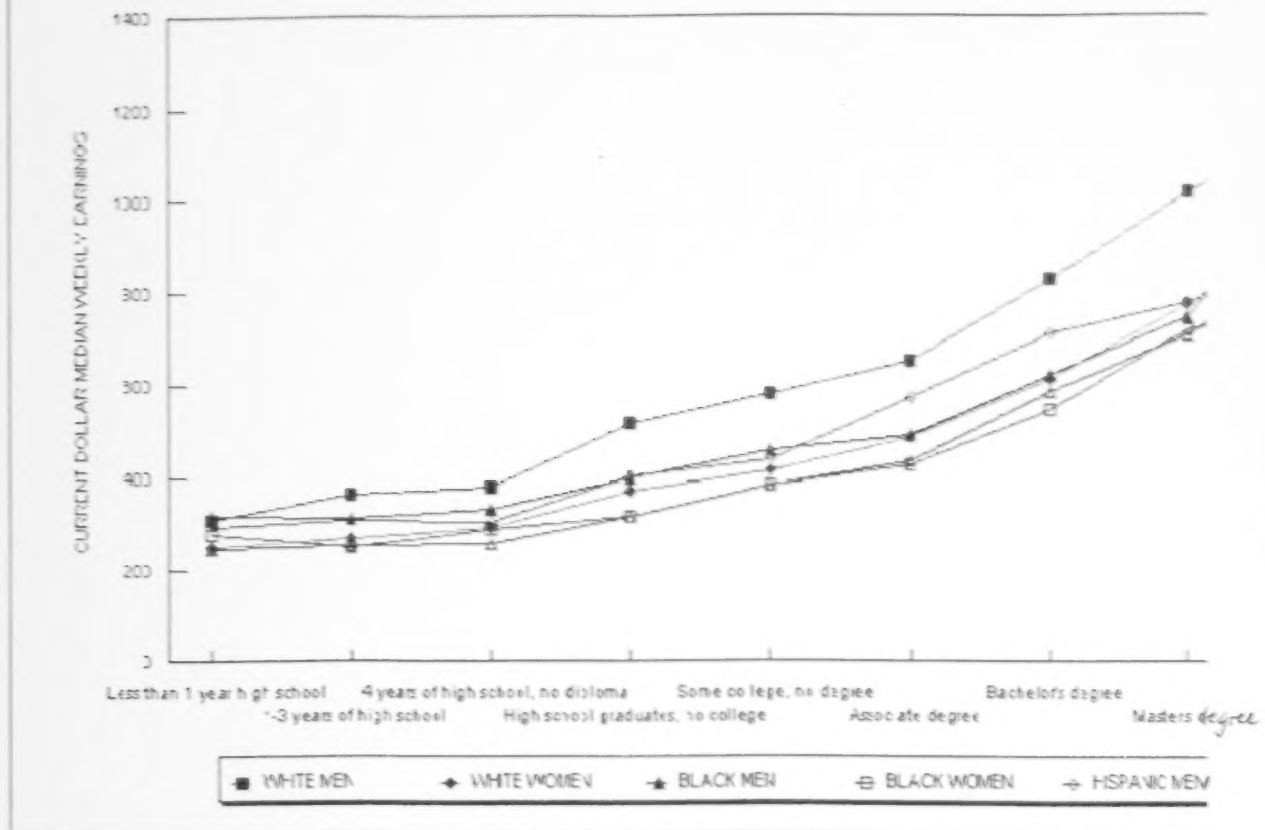


Figure 5

Overall, the participation rate for women grew between 1975 and 1990, but at a gradually slowing pace. From 1990 to 1993, however, it changed little. Subsequently, the participation rate resumed its upward trend. Mothers were primarily responsible for the gains in women's labor force participation rates both before 1990 and after 1993.⁹

Jacobson and Levin found that when women re-enter the labor market, their earnings are much lower than those of a comparable group of women who did not leave the labor market. Over time, that difference diminishes, but never disappears, even after as long as 20 years. One possible interpretation is that even after many years, employers view gaps as a signal that the individual is not as dedicated a worker as a woman who did not leave the work force. This view may be reflected in reduced promotion possibilities, different job assignments, and other actions by employers that reduce wages.¹⁰

The relationship between education and earnings, particularly for young women, deserves further attention. 1997 average weekly earnings data for full-time wage and salary workers by the level of education received, for different gender and race groups is presented in Figure 5. It is apparent from the graph that as education increases, earnings also rise dramatically, through the doctoral degree.

Turnover data for women and men have shown higher rates for women than for men. There are costs associated with hiring, and recent surveys by private employment agencies indicate that these costs can be substantial. The recent change in women's labor force participation tends to narrow the differences in

turnover rates between women and men with a concurrent increase in women's earnings. Additionally, the growing tendency of employers to provide child care benefits, flexitime, and family leave policies can further strengthen women's opportunity to meet family responsibilities with fewer work interruptions.

Have women's earnings continued to gain relative to men's in the 1990's? Many researchers agree that the relatively sharp increase in women's earnings compared to men's earnings apparent in the 1980's resulted from women's increased experience and education when compared to men. The women who left the labor market had human capital characteristics that were significantly different from those who entered the labor market during the 1980's. Anecdotal evidence also suggests that labor market discrimination against women declined.

However, the pace at which women's earnings have been rising compared to men's earnings has slowed, particularly after the recession of the early 1990's.

The ratio of women's annual earnings to men's annual earnings continued to climb haltingly through 1996, reaching a peak at 73.8 in 1996, the most recent year for which data is available. The number of women working full-time full-year continued to increase during this period. Census data in 1990 showed that less than half of working women (46.4 percent) worked full-time year-round. By 1997, this figure had climbed to 54.8 percent. As more women worked full-time full-year, annual earnings for women climbed relative to men's.

The ratio of hourly earnings for women compared to men rose without interruption from 1979 to peak levels of 81.2 percent in 1996, but declined in 1997 to 80.8 percent. However, after the 90-91 recession women's hourly earnings compared to men's earnings rose by only half a percentage point between 1992 and 1995, a snail's pace compared to the increases apparent in the 1980's.

There has been a significant slowing in closing the weekly earnings gap between women and men. The ratio of weekly earnings of full-time women and men rose steadily from 1979, peaking in 1993 at 77.1 percent; since that time the ratio has been dropping and, in 1997, was measured at 74.4 percent. The reasons for this decline are not clear, and we will probably have to wait to see if the earnings ratios will resume the gradual increase in women's earnings relative to men's earnings that we have seen for the last 2 to 3 decades.

However, we can examine earnings in more detail to see if we can uncover some possible reasons for the changes in earnings differences between women and men.

One aspect of earnings which has sparked much discussion is the increase in earnings inequality among individuals, among households, and among women and men. The general economic consensus seems to be that earnings inequality grew, without question, between the mid-1970's and the mid-1980's; whether inequality has continued to grow between the 1980's and the 1990's is not completely clear.¹¹ However, most researchers seem to concur that earnings disparity has declined between women and men, and among the races, while earnings disparities by skill has increased.

Bernstein and Mishel contend that starting in the mid-1980's, those at the top of the wage scale continued to pull away from those in the middle, with middle- and low-wage workers suffering similar losses in real wages. Over the 1989-96 period, the best description seems to be that wages of high-wage workers grew, while those of the rest of the work force flattened or declined. However, in 1997, weekly earnings for those in the bottom 10 percent of the pay scale rose 1.6 percent, the largest increase since 1979 when the statistical series was first began.

Reasons for the increase in disparity set out in the Economic Report of the President Transmitted to the Congress, February 1997, include technological change (45 percent), international trade (12 percent), a decline in the real minimum wage (10 percent) a decline in unionization (10 percent), rising immigration (8 percent), and other causes (15 percent).

Randy Ilg of the BLS has examined the quality of employment growth, using median weekly earnings

data from the CPS as the relative measure of job quality; the data were developed for a group of 90 major industries and occupations, a matrix of occupations within industries.¹² Because month-to-month changes in 90 series would be hard to track separately, they were ordered into a more manageable format. Individual data cells were ranked in descending order by the median weekly earnings of all wage and salary workers in 1993. The occupation-industry cells were then grouped into three categories-- highest-, middle-, and lowest-earnings-- that each accounted for approximately one-third of total employment in 1988. Using a 12-month moving average, the data show the percent change in employment for each of the three earnings groups using the annual average for 1989 as the base.

Between 1989 and 1997, employment in the middle-earnings group declined and then recovered to about the 1989 level. On the other hand, the highest- and lowest-earnings groups increased at approximately the same rate until 1993, when the highest-earnings group accelerated. Employment in the highest-earnings group increased by about 20 percent between 1989 and 1997 compared to about 10 percent for the lowest-earnings group; as noted earlier, there was almost no net employment change in the middle-earnings group. Thus, after the 1990-91 recession, it appears that employment in the highest-earnings group pushed ahead substantially faster than either of the other two groups.

Between 1993 and 1997, employment of men rose 2.4 million in professional and managerial occupations compared to an increase of 3.0 million for women. Table 2 provides data on selected occupations where women's earnings are the lowest relative to men's earnings. Almost all these occupations are those at the upper end and the lower end of the earnings spectrum, jobs into which women and men have been streaming since 1993, with women entering in greater numbers than men.

Ilg's research showed that the highest-earnings group contained primarily managers and professionals from every industry. Among groups with lowest earnings, net gains in employment were concentrated among sales and service occupations in retail trade and service occupations in services sector. Between 1996 and 1997, more women than men found jobs in these two industries.

What about sex discrimination? Sex discrimination still exists in the American workplace, but the magnitude of its effect on the earnings gap is hard to measure. Statistical studies have successfully attempted to measure the effects on the male-female earnings differential of several factors. Employee characteristics, such as occupation, education, and experience, have been examined using statistical techniques to assess the impact each has on women's and men's earnings. Most often the effects of discrimination in these studies are included in an "all other" category and are not measured separately. However, individuals and Federal agencies responsible for enforcement of civil rights legislation continue to win cases in which women have been discriminated against in the workplace, thus demonstrating that sex discrimination persists. As an example, two to three million dollars a year has been awarded each year between 1992 and 1997 to those winning cases filed with the Equal Employment Opportunity Commission (EEOC).

What can we conclude? It appears that women's earnings have been climbing when compared with men's earnings, gaining steeply during the 1980's. However, after the recession in the early 1990's, women's labor force participation rate stalled for about three years. During this same period women's earnings compared to men's earnings failed to show the steep gains exhibited during the 1980's.

Between 1980 and 1990 the ratio of hourly earnings climbed by 13.1 percentage points; between 1990 and 1997 the ratio climbed by only 2.9 points.

Between 1980 and 1990 the annual ratio climbed by 11.4 points; between 1990 and 1996 the ratio climbed by only 2.2 points.

Between 1980 and 1990 the weekly earnings ratio climbed by 7.5 percentage points; between 1990 and 1997 the ratio climbed 2.5 percentage points.

The reasons for the slowdown in the earnings ratios climb are not clear; the trends in real earnings for women and men need to be followed to find out if these changes are previews of a new equilibrium developing between women's and men's earnings or if some other structural changes are underway.

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